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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/726,721	11/30/2000	Kazuhiro Nakamigawa	14118	1909

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EXAMINER

ABDULSELAM, ABBAS I

ART UNIT	PAPER NUMBER
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2677

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/726,721	Applicant(s) NAKAMIGAWA, KAZUHIRO	
	Examiner Abbas I. Abdulsalam	Art Unit 2677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08/31/05.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7 and 8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 08/31/05 have been fully considered but they are not persuasive.

Applicant argues that that the cited reference does not teach a liquid crystal panel being either normally white or normally black, gradation power source supplying voltage depending on said liquid crystal panel and micro processor or dual in-line package switch outputting a switching signal for inputting the switching signal to the selector depending on the liquid crystal panel.

However as mentioned in the art rejection below, Fujioka teaches a drive circuit for a thin film EL display panel such as an AC driven capacitive flat matrix display panel. In addition, Fujioka teaches a power consumption for modulation in which the entire picture elements are charged with $1/2 \cdot V_M$ only once, and applicable for full emitting display mode, as well as other display modes, where the N-ch drive and P-ch drive are utilized as complementary saving power consumption (col. 9, lines 28-67 and col. 10, lines 1-3). Fujioka also teaches a first switching circuit and a second switching circuit for applying voltages of negative and positive polarities, respectively, with respect to the voltage of the data side electrodes, to the scanning side electrode, each of the data side electrodes being connected with a third switching circuit and a fourth switching circuit for respectively charging and discharging the EL layer corresponding to the scanning electrode (col. 2, lines 21-34). Note that the independent claim 7 states a liquid

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crystal panel being either normally white or normally black and not both. The claim does not reflect multiple types of display panels as alleged in the argument.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujioka et al. (USPN 5006838).

Regarding claim 7, Fujioka et al. teach a liquid crystal display comprising; a liquid crystal panel being either normally white or normally black, a gradation power source supplying voltage depending on the liquid crystal panel (col. 2, lines 67-68, col. 3, lines 1-13 and Fig. 1 (10)), a liquid crystal display controller comprising an inverter for inverting a digital image input signal (col. 2, lines 21-35, opposite polarities), a selector for choosing and outputting the signal inverted by the inverter and the digital image input signal depending on a switching signal (col. 2, lines 21-35, switching circuit), a data processor for processing data for showing the signal transmitted by the selector on the liquid crystal panel, and a liquid crystal driver transmitting the digital image input signal data-processed in the liquid crystal display controller to the liquid crystal panel using electric power supplied by the gradation power source (col. 4, lines 31-53, col. 9, lines 3-19 and col. 9, lines 28-45), and a micro processor or a dual in line package

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outputting a switching signal for inputting the switching signal to the selector depending on the liquid crystal panel (col. 4, lines 31-36).

Fujioka does not specifically teach “the data processor comprising a VT control section for a non-linear conversion”. Fujioka on the other hand does teach as shown in Fig. 11 a graph showing the voltage-to-luminance characteristic of the thin film EL display panel.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Fujioka’s voltage-luminance characteristics as plotted in Fig. 11 for controlling the voltage with respect to luminance.

Allowable Subject Matter

3. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abbas I Abdulsalam whose telephone number is (571) 272-7685. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abbas Abdulsalam

Examiner

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November 8, 2005

AMR A. AWAD
PRIMARY EXAMINER
Amr Ahmed Awad